

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY



(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 28 JUL 2005

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| Applicant's or agent's file reference MLC/UPS/2723PC | FOR FURTHER ACTION See Form PCT/IPEA/416 | |
| International application No. PCT/GB2004/002539 | International filing date (<i>day/month/year</i>) 11.06.2004 | Priority date (<i>day/month/year</i>) 11.06.2003 |
| International Patent Classification (IPC) or national classification and IPC A61F2/30, A61F2/34 | | |
| Applicant T.J. SMITH & NEPHEW LIMITED et al. | | |
| <p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p style="margin-left: 20px;">a. <input type="checkbox"/> <i>sent to the applicant and to the International Bureau</i>) a total of sheets, as follows:</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p style="margin-left: 20px;">b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> | | |
| <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p> | | |
| Date of submission of the demand 01.03.2005 | Date of completion of this report 27.07.2005 | |
| Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 | Authorized Officer Buchmann, G Telephone No. +49 89 2399- <div style="text-align: right;">  </div> | |

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/GB2004/002539

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-13 as originally filed

Claims, Numbers

1-27 as originally filed

Drawings, Sheets

1/3-3/3 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/GB2004/002539

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|------------------|
| Novelty (N) | Yes: Claims | 12,16-18 |
| | No: Claims | 1-11,13-15,19-27 |
| Inventive step (IS) | Yes: Claims | 17,18 |
| | No: Claims | 12,16 |
| Industrial applicability (IA) | Yes: Claims | 1-27 |
| | No: Claims | |

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Remark

The scope of the present claims 1-19, 22-24 and 26 is so broad that a meaningful search report covering the complete scope of the claims was not possible.

The search report was therefore based on the combination of the claims with the teaching of the description, and therefore covers only the field of acetabular cups.

Accordingly, a meaningful statement with regard to novelty and inventive step cannot be given for the complete scope of the claims.

For these reasons, the below statement has been formulated under the proviso that the claims are interpreted strictly according to the description or restricted to a fixing assembly for acetabular cups.

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- 1 The following documents are referred to in this communication:
D1 : EP 0 551 794 A (ALLO PRO AG ; SULZER MEDIZINALTECHNIK AG (CH))
21 July 1993 (1993-07-21)
D2 : US 6 454 809 B1 (TORNIER ALAIN) 24 September 2002 (2002-09-24)

2 INDEPENDENT CLAIM 1

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.
Document D1 discloses (the references in parenthesis applying to this document):
An outer shell of an acetabular cup with a fixing assembly for securing a fixing member (11) to the shell (1) wherein the fixing member (11) is connected to the outer surface of the shell (1) by a dovetail connection (see column 3, lines 12-22).
A fixing screw (13) passes into an aperture (16) of the fixing member to secure the fixing member to the surface.

The subject-matter of claim 1 is therefore already known from document D1.
Furthermore, the subject-matter of claim 1 is also disclosed in the document D2.

3 INDEPENDENT CLAIM 23

- 3.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 23 is not new in the sense of Article 33(2) PCT. As claim 23 comprises the same features as claim 1, it is referred to point 2 above.

4 INDEPENDENT CLAIM 27

- 4.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 27 is not new in the sense of Article 33(2) PCT. Document D1 discloses (the references in parenthesis applying to this document): The outer shell (1) of an acetabular cup as disclosed in D1 is suitable for mutual interfit with a fixing member of a fixing assembly of claim 1.

The subject-matter of claim 27 is therefore already known from document D1.

5 DEPENDENT CLAIMS 2-16, 19-22, 24-26

Dependent claims 2-16, 19-22, 24-26 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT).

6 DEPENDENT CLAIMS 17, 18

The combination of the features of dependent claims 17, 18 are neither known from, nor rendered obvious by, the available prior art. The reasons are as follows:

The subject-matter of claim 17 differs from the disclosure of D1 which is regarded as the closest prior art, in that the surface has a threaded portion adjacent the location feature, such that when the screw is screwed into the aperture of the fixing member, the screw engages with said threaded portion.

The problem to be solved may be regarded as to improve the fixation of the acetabular shell.

This problem is solved by the present invention by the fact that the acetabular cup is not only fixed via the fixing member, but force is applied to the cup also directly by the screw.

This is neither disclosed nor fairly suggested by any of the documents cited in the international search report.

The subject-matter of claim 18 differs from the disclosure of D1 which is regarded as the closest prior art, in that the surface has a circumferential groove forming the female location feature to lock the fixing member to the acetabular cup.

The problem to be solved may be regarded as to allow rotational freedom between the acetabular cup and the fixing member during implantation in order to adapt the implant to the individual situation.

This problem is solved by the present invention, because the circumferential groove allows shifting of the fixing member around the circumference of the acetabular cup before the screw is applied.

This is neither disclosed nor fairly suggested by any of the documents cited in the international search report.

Re Item VII

Certain defects in the international application

The independent claims are not written in the two part form (Rule 6.3(b) PCT), which in the present case would be appropriate, with those features known in combination from the prior art being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).

The features of the claims are not provided with reference signs placed in parentheses to increase the intelligibility of the claims (Rule 6.2(b) PCT). This applies to both the preamble and characterising portion (see the PCT Guidelines, III-4.11).

The documents D1 and D2 are not identified in the description and the relevant background art disclosed therein is not discussed (Rule 5.1(a)(ii) PCT).